

## Gulf of Mexico Harmful Algal Bloom Bulletin

25 January 2007

NOAA Ocean Service

NOAA Satellites and Information Service

Last bulletin: January 22, 2007

### Conditions Report

A harmful algal bloom has been identified in patches from Sarasota to central Collier Counties and north of the Lower Florida Keys in Monroe County. Today through Saturday afternoon, patchy very low impacts are possible from Sarasota to northern Charlotte Counties and in northern Lee and central Collier Counties, with low impacts possible in southern Charlotte County. Saturday night through Sunday, patchy moderate impacts are possible from Sarasota to northern Charlotte Counties and in northern Lee and central Collier Counties, with high impacts possible in southern Charlotte County. No impacts are expected from southern Lee to northern Collier Counties through Sunday. On the gulfside Lower Keys patchy moderate impacts are possible today through Friday and on Sunday, with patchy moderate impacts possible in the offshore region today through Sunday.

### Analysis

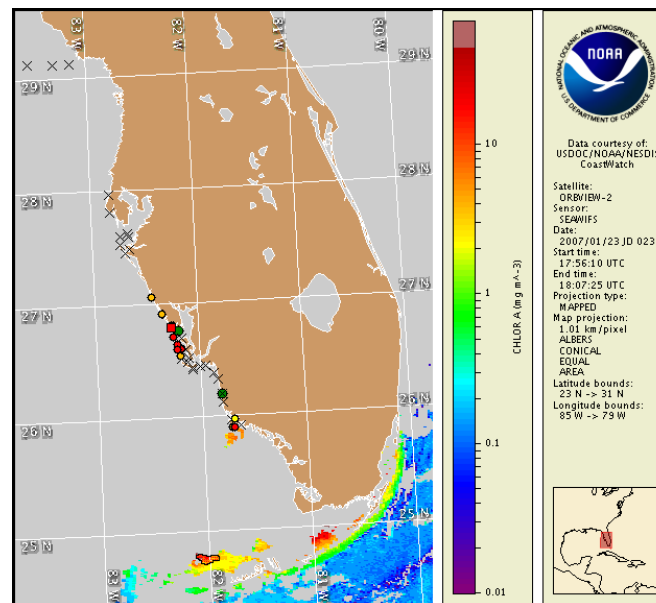
A harmful algal bloom persists from Sarasota to central Collier County and north to northwest of the Lower Florida Keys in Monroe County. *K. brevis* concentrations have primarily decreased along the coast over the past 10 days. However, concentrations have increased to high in southern Charlotte County (Gasparilla Fishing Pier), low in central Collier County (Caxambas Pass) and remain up to medium north of Venice in central Sarasota County (FWRI, 1/22-23). Recent imagery has been obscured by clouds, limiting analysis of presently elevated chlorophyll regions and bloom migration. Results of a wind transport model indicate that the bloom may have migrated slightly north (15-20km) since 1/21. Reports of fish kills and/or respiratory irritation have been received over the past few days in Sarasota County (Venice Beach area), Lee County (Boca Grande area), and Collier County (north of Naples Pier). South to southwestward bloom transport is possible today through tomorrow and on Sunday, with slight northward transport possible on Saturday.

Present bloom extent in the gulfside Lower Keys region is also limited due to recent cloudy imagery. Imagery received on 1/22 revealed a large patch of elevated chlorophyll (up to  $7\mu\text{g/L}$ ) northwest of the Lower Keys extending from  $24^{\circ}55.4'\text{N}$  to  $24^{\circ}41.4'\text{N}$  and  $82^{\circ}20.6'\text{W}$  to  $81^{\circ}54.1'\text{W}$ . Medium *K. brevis* concentrations have been reported within this patch (MML, 1/19). Wind conditions since 1/22 have likely driven the bloom slightly north and westward. No *K. brevis* has been identified inside the Keys (MML, 1/23). Southerly transport of *K. brevis* is possible today through Friday and on Sunday.

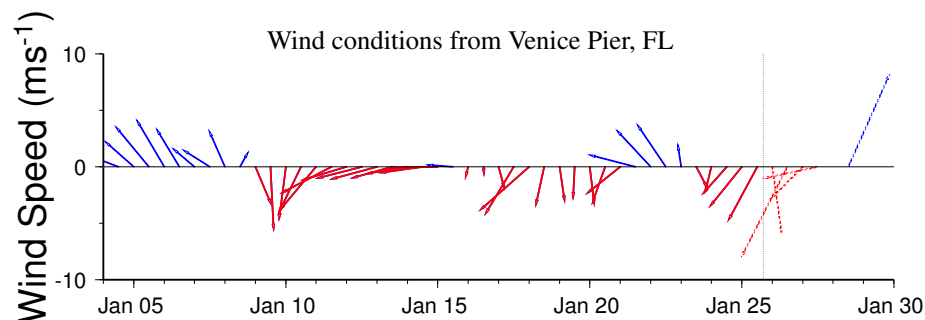
Please note the following restrictions on all SeaWiFS imagery derived from CoastWatch.

1. Data are restricted to civil marine applications only; i.e. federal, state, and local government use/distribution is permitted.
2. Image products may be published in newspapers. Any other publishing arrangements must receive GeoEye approval via the CoastWatch Program.

~Fisher, Fenstermacher



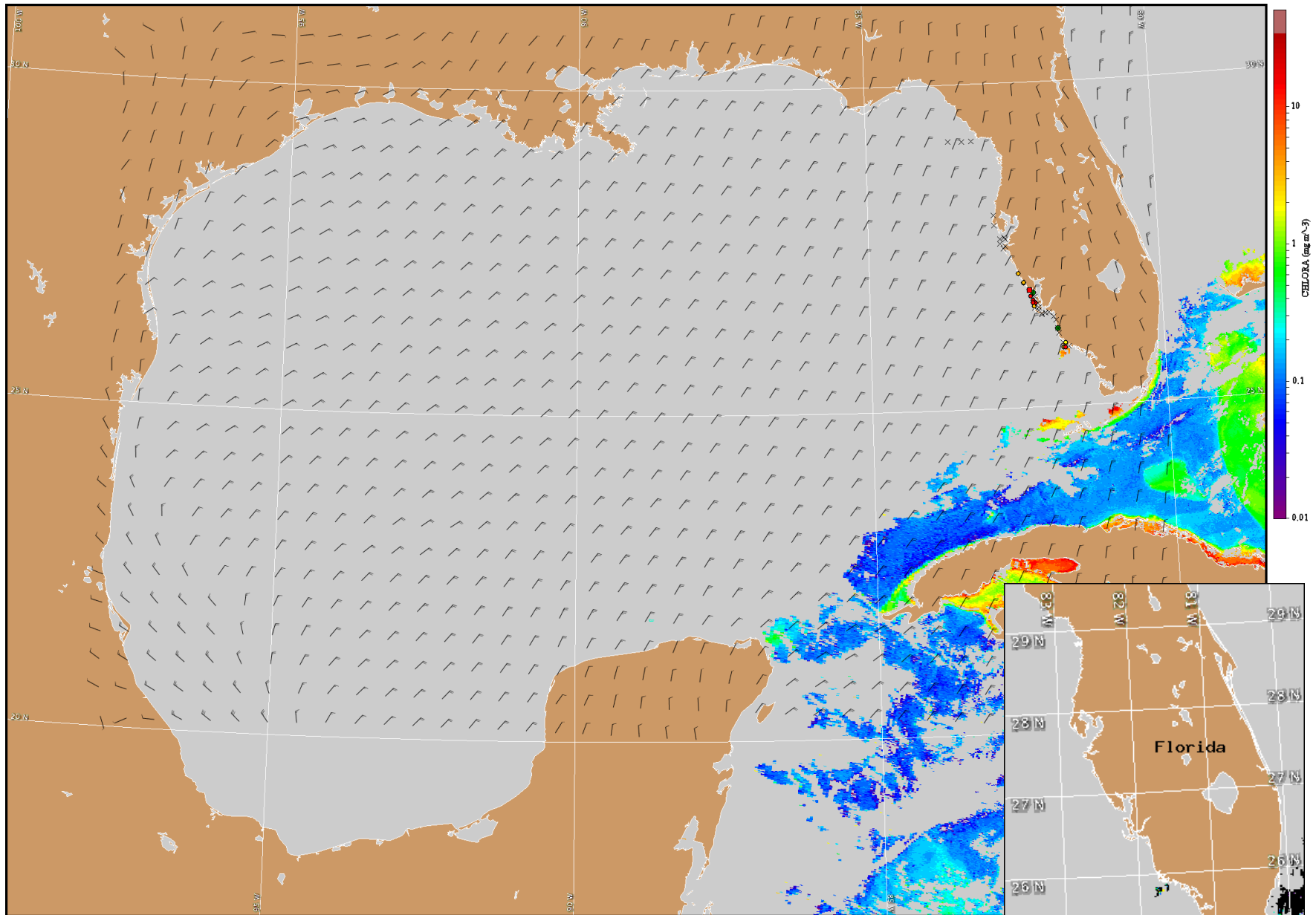
Satellite chlorophyll image with possible HAB areas shown by red polygon(s). Cell concentration categories and corresponding cell count values from Florida Fish and Wildlife Research Institute. For a key to the cell concentration descriptions, visit <http://research.myfwc.com>. Cell concentration sampling data from January 15-24 shown as red squares (high), red triangles (medium), red diamonds (low b), red circles (low a), orange circles (very low b), yellow circles (very low a), green circles (present), and black "X" (not present).



Wind speed and direction are averaged over 12 hours from buoy measurements. Length of line indicates speed; angle indicates direction. Red indicates that the wind direction favors upwelling near the coast. Values to the left of the dotted vertical line are measured values; values to the right are forecasts.

SW Florida: North winds today (15-20kts, 8-10m/s). Northeast winds Friday (15kts, 8m/s). Southeast winds Saturday (10kts, 5m/s) shifting south at night (20kts, 10m/s). Northwest winds Sunday (20kts). North winds Monday (15-20kts).

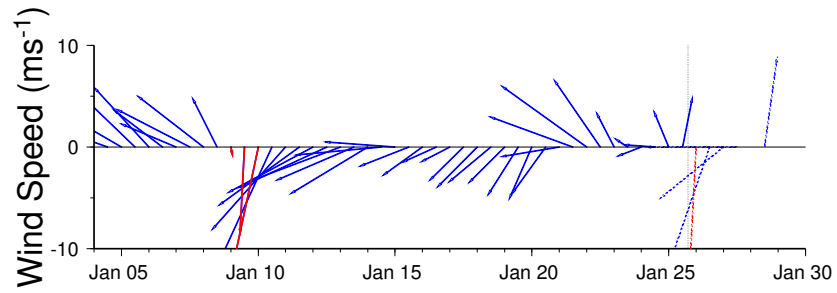
Florida Keys: Northwest winds today (20kts, 10m/s, and gusty). Northeast winds Friday (20kts). East winds becoming south Saturday (15kts, 8m/s). Southwest winds shifting northwest Sunday (15kts). North winds Thursday (15-20kts, 8-10m/s).



Satellite chlorophyll image and forecast winds for January 26, 2007 12Z with cell concentration sampling data from January 15-24 shown as red squares (high), red triangles (medium), red diamonds (low b), red circles (low a), orange circles (very low b), yellow circles (very low a), green circles (present), and black "X" (not present).

Verified HAB areas shown in red. Other bloom areas shown in yellow (see p. 1 analysis for interpretation).

Wind conditions from Sand Key, FL



Wind conditions from Naples, FL

